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Title 5 Implementation: A Survey of Bankers, Boards of Health and Certified Inspectors

September 1995

Conducted by Mass Insight and
Opinion Dynamics for:

Massachusetts Association of Health Boards
Massachusetts Bankers Association
Massachusetts Department of Environmental Protection

Mass Insight

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President

TITLE 5 IMPLEMENTATION SURVEY

SUMMARY OF FINDINGS

Three survey instruments designed to assess attitudes and experiences with recent Title 5 regulation changes were mailed in early September to bankers, town health boards, and certified Title 5 inspectors. From a total of approximately 200 surveys mailed to bankers, 90 completed responses were received. Approximately 350 surveys were mailed to health board members yielding 85 responses. 188 completed surveys were returned by certified inspectors from an initial mailing list of 1,000. These are good response rates for a mail survey of this type and provide adequate data to draw several general conclusions:

- There is a reported failure rate of approximately 1 in 4 for Title 5 inspections.
- Consistent with the reported failure rate, 17% of the 2,140 transactions reported by the bankers involving Title 5 inspections were either delayed or cancelled. 296 (13.8%) were delayed and 76 (3.6%) were cancelled. Approximately three-quarters of the delays were 3 weeks or less.
- Necessary repairs to failed systems are evenly divided between partial and full-system replacements. Of the failures reported, most were caused by sewage backup or backup by broken parts.
- Estimated average repair or replacement costs range from \$5,400 to \$7,500. Depending on the group surveyed, between 2 to 8% of the repairs were reported costing more than \$15,000.
- 87% of property transfers requiring Title 5 inspections are for homes priced at \$200,000 or less. The average price reported by the bankers is \$179,000; thus the average cost for septic system upgrade is 4% or less of the average sales price.
- Only 15% of certified inspectors reported conducting repairs on failed systems which they had inspected.
- The average basic cost of a septic system inspection is \$372.

Despite the different perspectives among the sampled groups, there was significant agreement in several key areas. First, both certified inspectors and health board members reported system inspection failure rates of approximately 25% for inspections conducted since March of 1995. Both groups also reported that the needed repair of these failed systems was divided roughly evenly between partial- and full-system replacements. Board members and inspectors further agreed that the main reasons for system failures were broken or improper pipe components, systems in ground water, and backup or breakout of effluent.

TABLE 8 IMPLEMENTATION SURVEY

SUMMARY OF FINDINGS

Three survey instruments designed to assess attitudes and experiences with water July 2 were administered. The first instrument assessed attitudes toward water quality and quantity. The second instrument assessed experiences with water quality and quantity. The third instrument assessed experiences with water quality and quantity. The first instrument was administered to 100 respondents. The second instrument was administered to 100 respondents. The third instrument was administered to 100 respondents. The first instrument was administered to 100 respondents. The second instrument was administered to 100 respondents. The third instrument was administered to 100 respondents.

Table 8 presents the results of the survey. The first column presents the question. The second column presents the response. The third column presents the percentage of respondents who chose that response.

Question: What is the most important factor in determining water quality? Response: The most important factor in determining water quality is the amount of pollution. The percentage of respondents who chose this response is 45%.

Question: What is the most important factor in determining water quantity? Response: The most important factor in determining water quantity is the amount of precipitation. The percentage of respondents who chose this response is 40%.

Question: What is the most important factor in determining water quality and quantity? Response: The most important factor in determining water quality and quantity is the amount of pollution. The percentage of respondents who chose this response is 45%.

Question: What is the most important factor in determining water quality and quantity? Response: The most important factor in determining water quality and quantity is the amount of precipitation. The percentage of respondents who chose this response is 40%.

Question: What is the most important factor in determining water quality and quantity? Response: The most important factor in determining water quality and quantity is the amount of pollution. The percentage of respondents who chose this response is 45%.

The average cost of water supply is \$1.50 per gallon.

Table 9 presents the results of the survey. The first column presents the question. The second column presents the response. The third column presents the percentage of respondents who chose that response. The first instrument was administered to 100 respondents. The second instrument was administered to 100 respondents. The third instrument was administered to 100 respondents. The first instrument was administered to 100 respondents. The second instrument was administered to 100 respondents. The third instrument was administered to 100 respondents.

The groups surveyed estimated the following average system repair costs: \$5,400 (reported by certified inspectors), \$6,600 (reported by health board members), \$7,500 (reported by bankers). Between 2 and 8% of the repairs were reported to cost more than \$15,000.

Among the bankers surveyed it was reported that 87% of the homes with cesspools or septic systems sold during the past 6 months for \$200,000 or less. The mean selling price for these homes was \$179,000.

Bankers encountered Title 5 property transfer delays or cancellations approximately 17% of the time, of which 13.8% were delays, and 3.6% were cancellations. Overall, two-thirds of bankers surveyed experienced at least one of these delays or cancellations. Of the delays reported, 72% were for three weeks or less, another 20% lasted three to six weeks, and 8% were for more than six weeks. In total, serious delays (4 weeks or more) and cancellations accounted for 8% (170) of 2,140 transactions reported.

Bankers reported that system repairs required for closing were paid by sellers approximately half of the time. Buyers and sellers split repair costs in approximately 17% of the cases, while some other payment scenario accounted for the remaining system repairs. Only 14% of banks required Title 5 inspections for refinancing all the time, although another 40% require them sometimes. Only seven percent reported offering low interest loans to homeowners for the purpose of Title 5 repairs. In response to suggestions for improving Title 5, many bankers suggested better communications and education on Title 5.

Both bankers and health board members share similar feelings about the efficacy of the detailed changes. The regulation changes perceived to have the most beneficial impact on consumers include:

- inspections valid for two years,
- evaluation rather than automatic failure of systems deemed too close to water resources, and
- routine schedule for condominium system inspections.

Only 15% of the certified inspectors reported actually repairing or replacing systems which they had inspected. More than two-thirds of the total inspectors (67%) surveyed reported their inspection time to be 6 hours or less. The estimated cost of these inspections ranged from an average low of \$297 to an average high of \$606. The estimated overall average cost for basic inspections was \$372.

Ninety-one percent of the health board members reported no town-wide inspection and maintenance programs, and 61% further reported that they would not be considering such a plan despite the fact that the newly announced regulations allow towns to opt out of time of transfer inspections if such a program is in place. More than one-quarter of the health boards reported

RESPONSES TO SURVEY OF CERTIFIED INSPECTORS

182 Responses out of 1,000 mailed

having stricter local standards for system sizes and setback requirements, and a full 40% reported some tougher natural resource protection standards. 68% said that the new Title 5 regulations had not influenced the municipality's need for community septic or sewer systems.

Finally, when asked to comment on Title 5 regulation changes, a full 35% of health board members suggesting change pleaded with state officials to allow the new regulations to be absorbed and understood before considering any further adjustments.

3. During this same time period, approximately what percentage of systems did you both inspect and repair?
Mean = 15%

4. How many repairs were full system replacements as opposed to replacements of one or more components?
a. full system replacements Mean = 1.7
b. component repair/replacements Mean = 1.7

5. Of the systems that have failed, please indicate by checking the cause and estimating the number of failures attributed to each cause:

Note: Means have generally been calculated among the subset of respondents who had one or more systems in being referred to the "new" regulations of those who had no full system capacity are not included. The raw data can be manipulated in many different ways; other methods of calculations may be appropriate for some data sets.

	% of total systems	Mean # of failures	
a.	35%	1.6	Broken or damaged pipe/components
b.	27%	2.4	Systems in groundwater
c.	20%	2.6	Seepage or breakage of effluent
d.	12%	2.0	Common low flow or water supply
e.	4%	1.8	Full capacity systems too close to water supply
f.	8%	1.1	Common low flow to other water resource
g.	3%	2.3	Full capacity systems too close to other water resource
h.	3%	2.4	Other (please specify):

6. What is the cost range as well as the average cost to conduct an inspection?
a. Lowest cost \$ 200 (Mean)
b. Highest cost \$ 500
c. Average cost \$ 372

having been found to be in compliance with the requirements of the Act, and a full report
of the results of the investigation is being prepared. The results of the investigation
will be submitted to the committee as soon as they are available.

It is noted that the committee has been informed that the results of the investigation
will be submitted to the committee as soon as they are available. It is noted that the
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committee as soon as they are available.

RESPONSES TO SURVEY OF CERTIFIED INSPECTORS

188 Responses out of 1,000 mailed

Since the new Title 5 regulations became effective in March of 1995:

1. How many Title 5 Inspections have you conducted since March 31, 1995?

Mean = 12.11

2. How many of the systems you inspected during that time have been determined to be in failure?

Mean = 3.2

3. During this same time period, approximately what percentage of systems did you both inspect and repair?

Mean = 15%

4. How many repairs were full system replacements as opposed to replacement of one or more components?

a. full system replacements

Mean = 3.7

b. component repair/replacements

Mean = 3.7

5. Of the systems that have failed, please indicate by checking the cause and estimating the number of failures attributed to each cause:

Note : Means have generally been calculated among the subset of respondents who had any of whatever is being referred to; the "zero" responses of those who had no full system repairs are not included. The raw data can be manipulated in many different ways; other methods of calculation may be appropriate for some data users.

	<u>% citing cause</u>	<u>Mean # of failures</u>	
a.	25%	2.6	Broken or improper pipe/components
b.	27%	2.4	System in groundwater
c.	29%	2.8	Backup or breakout of effluent
d.	13%	2.6	Cesspool too close to water supply
e.	4%	1.9	Soil absorption system too close to water supply
f.	8%	3.1	Cesspool too close to other water resource
g.	5%	5.3	Soil absorption system too close to other water resource
h.	20%	2.9	Other, please specify:

6. What is the cost range as well as the average cost to conduct an inspection?

a. Lowest cost

\$ 297 (Mean)

b. Highest cost

\$ 606

c. Average cost

\$ 372

7. Does your typical inspection include any of the following services, and if so, what do you normally charge for these services?

a. Pumping

1. Yes	33%	cost	\$164
2. No	39		
NA	28		

b. Back hoe

1. Yes	22%	cost	\$133
2. No	48		
NA	30		

c. Auger

1. Yes	17%	cost	\$64
2. No	49		
NA	35		

8. What is the average length of time you spend conducting a Title 5 inspection?

1. Less than 2 hours	5%
2. 2-4 hours	41
3. 4-6 hours	23
4. 6-8 hours	6
5. More than 8 hours	2
NA	23

9. In the last six months, has your firm performed replacements, upgrades or repairs for Title 5 systems? If yes, how many?

1. Yes	37%	How many?	Mean = 11.3
2. No	46		
NA	18		

10. What is the average range of costs for replacements, upgrades or repairs that you have been involved with?

1. Less than \$2,500	13%	
2. \$2,500 - \$5,000	14	
3. \$5,000 - \$10,000	18	Mean = 5,400
4. \$10,000 - \$15,000	5	
5. More than \$15,000	3	
NA	48	

11. Please describe any unusual factors or circumstances which have significantly affected the cost of repairs that you are familiar with:

A significant number of responses cited groundwater-related issues as the most significant factor affecting the cost of system repairs/upgrades.

RESPONSES TO SURVEY OF BANKERS

90 Responses out of 200 mailed

Since the new Title 5 regulations became effective in March, 1995:

1. What is the average price for homes with cesspools or septic systems that your lending institution is involved in financing?

1. Less than \$100,000	10%
2. \$101,000 to \$150,000	43
3. \$151,000 to \$200,000	33
4. \$201,000 to \$250,000	10
5. \$251,000 to \$300,000	4
6. \$301,000 or more	1
NA	4

2. How many residential property transfers (excluding refinancing) of homes with cesspools or septic systems have gone forward through your institution since March 31, 1995?

Mean = 27.4

3. Have any property transfers been delayed (beyond the usual time required) or canceled due to Title 5 related problems, and if so, how many?

Canceled	30% say at least one	How many?	Mean = 2.9
Delayed	32% say at least one	How many?	Mean = 4.2

3a. If Delayed, please specify: _____ How many?

1. 0-3 weeks	32%	Mean = 3.2
2. 3-6 weeks	32%	Mean = 3.2
3. More than 6 weeks	18%	Mean = 4.0

4. Overall, how have the length and number of delays changed in the last two months?

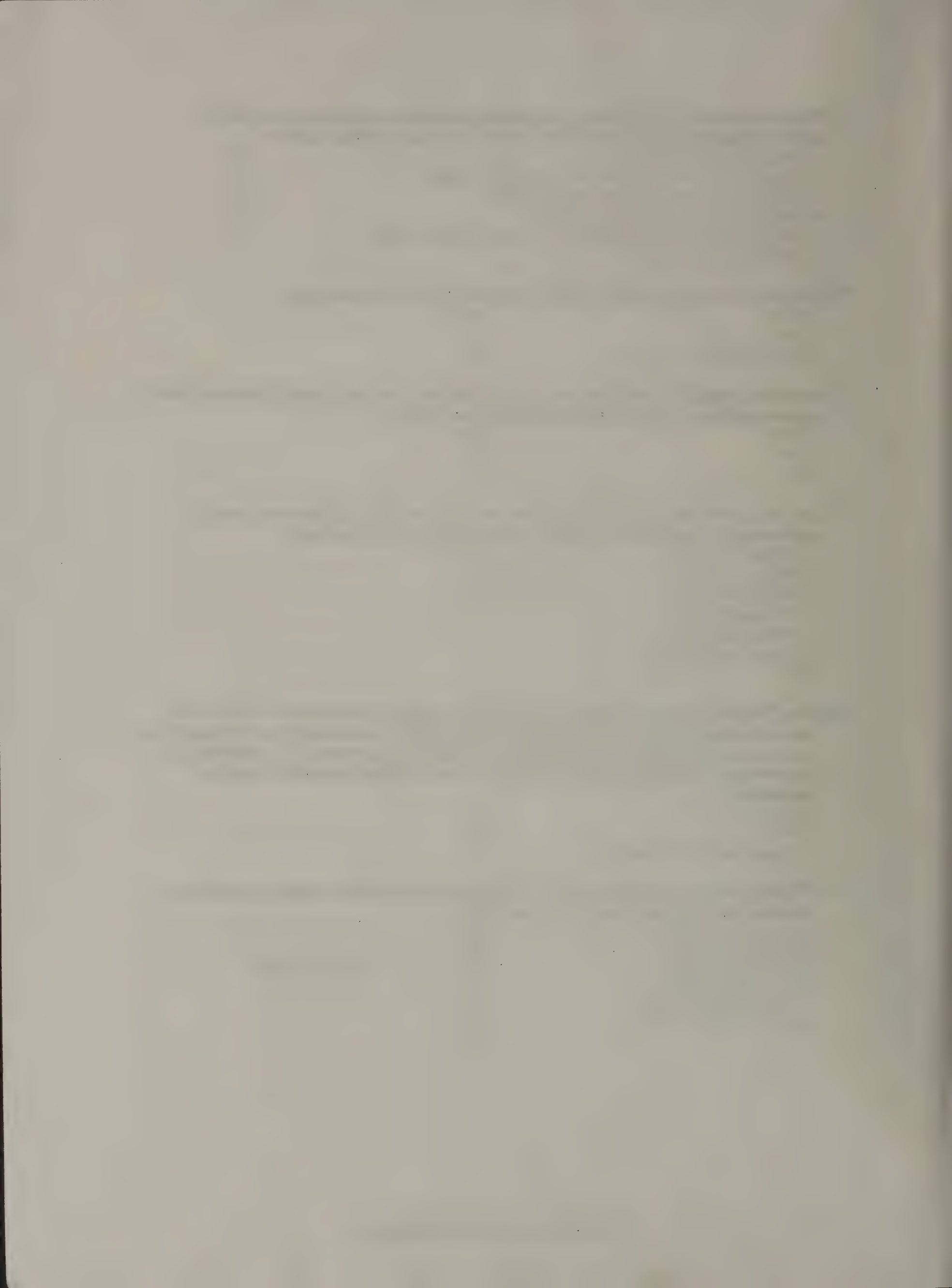
1. Increased a lot	1%
2. Increased a little	2
3. Decreased	10
4. Stayed the same	74
NA	12

5. In the cases that you are aware of where a Title 5 system upgrade or replacement was deemed necessary, how did the various parties involved resolve payment?

1. Buyer paid	1%
2. Seller paid	53
3. Buyer/Seller split costs	14
4. Other, please specify:	6
5. Not sure	16
NA	10



6. What conditions, if any, does your lending institution require when Title 5 improvements have been deemed necessary? (check all that apply)
- | | |
|--|----|
| 1. No special conditions | 1% |
| 2. Require that funds be escrowed prior to closing | 40 |
| 3. Require system upgrade prior to closing | 61 |
| 4. Require complete system upgrade | 17 |
| 5. Require partial upgrade only for defective components | 22 |
| 6. Other, please specify: | 9 |
7. Are you currently requiring Title 5 inspections for refinancing?
- | | |
|----------------------------|-----|
| 1. Yes | 14% |
| 2. No | 47 |
| 3. Sometimes; If so, when? | 40 |
8. Does your lending institution offer any lower interest loans to help finance Title 5 system upgrades as part of its community outreach?
- | | |
|--------|----|
| 1. Yes | 7% |
| 2. No | 90 |
| NA | 3 |
9. How long from the time of inspection does it generally take for your lending institution to become aware of the results of Title 5 inspections?
- | | |
|-----------------------|-----|
| 1. Within 7 days | 28% |
| 2. Within 14 days | 37 |
| 3. Within 30 days | 23 |
| 4. Within 60 days | — |
| 5. Within 90 days | — |
| 6. Other, within days | — |
| NA | 12 |
10. The Title 5 rules have been changed so that an inspection is now valid for 24 months, and up to 36 months if the system is pumped annually, or perhaps even longer under an approved local plan for periodic inspection. If a property is transferred in less than that time, would your institution require another inspection?
- | | |
|-----------------------------|-----|
| 1. Yes | 19% |
| 2. No | 67 |
| 3. Depends on the situation | 12 |
11. What is the average range of costs for septic system replacement, upgrades or repairs that you have been involved with?
- | | | |
|------------------------|----|--------------|
| 1. Less than \$2,500 | 3% | Mean = 7,500 |
| 2. \$2,500 - \$5,000 | 22 | |
| 3. \$5,000 - \$10,000 | 33 | |
| 4. \$10,000 - \$15,000 | 14 | |
| 5. More than \$15,000 | 8 | |
| NA | 19 | |



- 12. Septic systems in condominiums only need to be inspected once every three years, not whenever sold. Also, the size of the condo septic system is now based on the number of bedrooms listed on the master deed. Are there any additional changes that you feel are necessary to ease the burden of Title 5 on condo sales?**

An analysis of the verbatims in response to this question produced no significant or conclusive findings.

- 13. Relative to Title 5 issues, do you have any ideas for making the property transfer process smoother, or for addressing the financial concerns of home owners?**

An analysis of the verbatims in response to this question produced no significant or conclusive findings.

- 14. Are you familiar with the emergency Title 5 regulations which went into effect on August 2, 1995?**

1. Yes	52%
2. No	16
3. Some familiarity	28
NA	4

If yes, please assess the financial impact of the following components of the emergency Title 5 regulations. In your opinion, would these changes financially impact home owners in a positive way, a negative way, or have no discernible impact?

a. Inspection valid for 2 years

1. Positive Impact	64%
2. Negative Impact	2
3. No Impact	9
NA	24

b. Allow up to 2 years to complete repairs.

1. Positive Impact	40%
2. Negative Impact	12
3. No Impact	23
NA	24

c. Easier specifications for fill material.

1. Positive Impact	58%
2. Negative Impact	2
3. No Impact	13
NA	27

d. Cost to be included in determining "maximum feasible compliance" for upgrades.

1. Positive Impact	53%
2. Negative Impact	2
3. No Impact	11
NA	33

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e. Re-inspection not required of system approved within the last 2 years.

1. Positive Impact	67%
2. Negative Impact	1
3. No Impact	7
NA	26

f. Evaluation of systems too close to water resources rather than automatic failure.

1. Positive Impact	71%
2. Negative Impact	1
3. No Impact	1
NA	27

g. Condo association systems inspected on routine schedule rather than with each sale.

1. Positive Impact	68%
2. Negative Impact	3
3. No Impact	2
NA	27

h. Voluntary inspection not reported to Board of Health.

1. Positive Impact	49%
2. Negative Impact	8
3. No Impact	17
NA	27

i. Other

1. Positive Impact	2%
2. Negative Impact	1
3. No Impact	1
NA	96

15. Please suggest any ways in which Title 5 can be more effectively and efficiently carried out?

Verbatim responses to this question referenced a need for more information and public education regarding Title 5 regulations.

RESPONSES TO SURVEY OF BOARDS OF HEALTH

85 Responses out of 350 mailed

Since the new Title 5 regulations became effective in March, 1995:

- 1. How many Title 5 Inspections have been conducted in your community since March 31, 1995?**

Mean = 49 Inspections

- 2. How many of the system inspections that have been filed during that time have been determined to be in failure?**

Mean = 14 Inspections

- 3. How many repairs were full system replacements as opposed to replacement of one or more components?**

	<u>% who performed</u>	<u>Mean Number*</u>
a. Full System Replacements	58%	15.7
b. Component Repair/Replacements	55%	12.8

*Note : Means have generally been calculated among the subset of respondents who had any of whatever is being referred to; the "zero" responses of those who had no full system repairs are not included. The raw data can be manipulated in many different ways; other methods of calculation may be appropriate for some data users.

- 4. Of the systems that have failed, please indicate by checking the cause and estimating the number of failures attributed to each cause.**

	<u>% citing cause</u>	<u>Mean # of failures</u>	
a.	51%	5	Broken or improper pipe/components
b.	41%	6	System in groundwater
c.	52%	5	Backup or breakout of effluent
d.	13%	1	Cesspool too close to water supply
e.	12%	1	Soil absorption system too close to water supply
f.	16%	2	Cesspool too close to other water resource
g.	16%	2	Soil absorption system too close to other water resource
h.	24%		Other, please specify:

- 5. In your community, what has been the average range of cost of septic system replacement, repair and upgrades necessary to comply with Title 5?**

Based on 54 responses

1. Less than \$2,500	2%	
2. \$2,500 - \$5,000	39	
3. \$5,000 - \$10,000	41	Mean = \$6,600
4. \$10,000 - \$15,000	17	
5. More than \$15,000	2	

6. Do you have local regulations or bylaws that are stricter than the new Title 5 regulations which went into effect in March for:

a. Size of system

1. Yes	27%
2. No	58
NA	15

b. Materials used

1. Yes	4%
2. No	76
NA	21

c. Setbacks from structures/property lines

1. Yes	27%
2. No	56
NA	17

d. Natural resource protection standards

1. Yes	40%
2. No	42
NA	19

e. Other, please specify:

1. Yes	24%
2. No	22
NA	54

7. If "yes" to any of the above, do your regulations or bylaws distinguish between new construction and upgrade of existing systems?

1. Yes	21%
2. No	41
NA	38

8. Do you have a town-wide inspection and maintenance program in effect now?

1. Yes	1%
2. No	91
NA	8

If "no" to question 8

8a. The emergency Title 5 regulations adopted on August 2, 1995 allow towns to opt out of time of transfer inspection if they have a town-wide inspection and maintenance program. Will you consider adopting a town-wide program?

1. Yes	15%
2. No	61
NA	24

9. Are you familiar with the emergency Title 5 regulations which went into effect on August 2?

1. Yes	76%
2. No	1
3. Some familiarity	17
NA	6

If yes, please assess the financial impact of the following components of the emergency Title 5 regulations on the back page of this survey. Otherwise, please skip to question 12 on the back page of this survey.

An analysis of the verbatims in response to this question produced no significant or conclusive findings.

In your opinion, would these emergency Title 5 changes financially impact home owners in a positive way, a negative way, or have no discernible impact?

a. Inspection valid for 2 years

1. Positive Impact	65%
2. Negative Impact	2
3. No Impact	17
NA	15

b. Allow up to 2 years to complete repairs.

1. Positive Impact	47%
2. Negative Impact	16
3. No Impact	20
NA	17

c. Easier specifications for fill material.

1. Positive Impact	59%
2. Negative Impact	12
3. No Impact	11
NA	19

d. Cost to be included in determining "maximum feasible compliance" for upgrades.

1. Positive Impact	54%
2. Negative Impact	11
3. No Impact	15
NA	20

e. Re-inspection not required of system approved within the last 2 years.

1. Positive Impact	83%
2. Negative Impact	—
3. No Impact	1
NA	18

f. Evaluation of systems too close to water resources rather than automatic failure.

1. Positive Impact	66%
2. Negative Impact	11
3. No Impact	7
NA	16

g. Condo association systems inspected on routine schedule rather than with each sale.

1. Positive Impact	58%
2. Negative Impact	5
3. No Impact	16
NA	21

h. Voluntary inspection not reported to Board of Health.

1. Positive Impact	37%
2. Negative Impact	28
3. No Impact	13
NA	22

i. Other

1. Positive Impact	2%
2. Negative Impact	6
3. No Impact	—
NA	92

10. Have you applied or are you planning to apply for state assistance to provide low interest loans to homeowners for the replacement, upgrade or repair of septic systems or cesspools?

1. Have applied	12%
2. Are planning to apply	17
3. Have no current plan to apply	37
4. Have not decided yet	16
NA	17

11. Are you considering creation of a betterment program to provide low-interest long-term loans to citizens in your community for the purpose of Title 5 system upgrades?

1. Yes, we have a betterment program system in effect	6%
2. Yes, we are considering a betterment program	33
3. No, we are not considering such a program	48
NA	14

If "yes" to question 11

11a. What can the state do to help?

If "no" to question 11

11b. Why are you not considering a system?

12. Have the new Title 5 regulations influenced the municipality's need for community septic systems or sewers, and if yes, please explain?

1. No	68%
2. Yes; Please explain:	24
NA	8

13. Please suggest any ways in which Title 5 can be more effectively and efficiently carried out?

The most common response to this question was an appeal to state officials not to further change Title 5 regulations, referencing their desire to digest/understand the many recent changes which have gone into effect.

